

Data Validation Checklist Semivolatile Organic Analyses

Project: 35TH Avenue Superfund Site
 Laboratory: TestAmerica – Savannah, GA
 Method: SW-846 8270D Low-Level (PAH)
 Matrix: Soil
 Reviewer: Karen M Trujillo, URS Group, Inc.
 Concurrence²: Martha Meyers-Lee, URS Group, Inc.

Project No: 60430028; 1
 Job ID.: 680-109515-2
 Associated Samples: Refer to **Attachment A** (Sample Summary)
 Samples Collected: 01/27/2015
 Date: 10/23/2015, revised 10/27/2015¹
 Date: 10/23/2015 and 10/28/2015

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
1. Were sample storage and preservation requirements met? If temperature >6°C, then J/UJ flag results.	✓				
2. Were all COC records signed and integrity seals intact, indicating that COC was maintained for all samples?	✓				
3. Were there any problems noted in laboratory data package concerning condition of samples upon receipt?		✓			
4. Do any soil samples contain more than 50% water? If yes, then results are to be reported on a wet-weight basis.		✓			
5. Were holding times met (≤7 and 14 days from collection to extraction for aqueous and solid samples, respectively; ≤40 days from extraction to analysis)? If not, then J/UJ flag sample results. If grossly (2x) exceeded, then flag J/R.	✓				
6. Were results for all project-specified target analytes reported?	✓				
7. Were project-specified Reporting Limits achieved for undiluted sample analyses?	✓				
8. Were samples with analyte concentrations exceeding the calibration range of the instrument re-analyzed at a higher dilution? If not, then J flag sample result.	✓				
9. Was a method blank extracted with each batch (i.e., one per 20 samples, per batch, per matrix and per level)?	✓				
10. Were target analytes detected in the method blank?		✓			
11. Are equipment/rinsate blanks associated with every sample? If no, note in DV report.		✓		According to the QAPP, a rinsate blank is to be collected after each decontamination event, which occurs once per week per the client. A rinsate blank is not associated with this sampling event. Blank contamination will be evaluated based on method blank results.	

¹ Revised to include an evaluation of field duplicate results

² Independent technical reviewer

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
12. Were target analytes detected in equipment/rinsate blanks?			✓		
13. Were analytes detected in samples below the blank contamination action level? If yes, U flag positive sample results <5x associated blank concentration (10x for common blank contaminants–phthalates)			✓	Blank contamination does not exist.	
14. Is a field duplicate associated with this Job?	✓			HP0320J-CSD6" (680-109515-63), which is a project-specific sample where results were reported under Job ID 680-109515-4, is a field duplicate of HP0320J-CS6" (680-109515-32)	
15. Was precision deemed acceptable as defined by the project plans?		✓		Refer to Attachment B (Field Duplicate Evaluation)	J/UJ
16. Were DFTPP ion abundance criteria (i.e., Table 3 of SW-846 8270D) met? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓			Alternate tuning criteria were used by the laboratory (i.e., EPA Method 525.2). All ion abundance criteria were met per EPA Method 525.2.	
17. Were samples analyzed within 12 hours of the DFTPP tune? If no, professional judgment may be applied to determine to what extent the data may be utilized.	✓				
18. Were initial and continuing calibration standards analyzed at the proper frequency for each instrument? <ul style="list-style-type: none"> Ensure that a minimum of five standards are used for the initial calibration. If no, use professional judgment to determine the effect on the data and note in the reviewer narrative. An initial calibration is to be associated with each sample analysis. A continuing calibration standard is to be analyzed for every 12 hours of sample analysis per instrument. 	✓			<ul style="list-style-type: none"> Instrument ID: CMSK Initial Calibration: 02/04/2015 ICV: 02/04/15 @ 11:59 CCV: 02/06/15 @ 12:54 and 02/07/15 @ 10:20 <ul style="list-style-type: none"> Instrument ID: CMSY Initial Calibration: 02/03/2015 ICV: 02/03/15 @ 19:20 CCV: 02/06/15 @ 16:31 and 02/07/15 @ 13:04 	
19. Were calibration results within laboratory/project specifications? <ul style="list-style-type: none"> ICAL (Criteria: ≤ 20 mean %RSD ($\leq 50\%$ for poor performers), OR $r \geq 0.995$, OR $r^2 \geq 0.99$, and RRF ≥ 0.050 (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> If %RSD > 20 ($> 50\%$ for poor performers), or $r < 0.995$, or $r^2 < 0.995$, then J flag positive results and UJ flag non-detects If mean RRF < 0.050 (< 0.010 for poor performers), then J flag positive results and R flag non-detects (unless the lab analyzed a detectability check standard) ICV and CCV (ICV Criteria: $\leq \pm 30\%D$; CCV Criteria: $\leq \pm 20\%D$ ($\leq 50\%$ for poor performers) and RF ≥ 0.050 (≥ 0.010 for poor performers)): <ul style="list-style-type: none"> If %D $>$ Control Limit ($> 50\%$ for poor performers), then J flag positive results and UJ flag non-detects If RF < 0.050 (< 0.010 for poor performers), then UJ flag non-detected semivolatile target compounds 		✓		CCV of 02/03/15 @ 19:20 (CCVIS 680-370012/2), instrument CMSY: Indeno[1,2,3-cd]pyrene @ -24.9 %D (Lab/Project: ≤ 20). Qualification of data is not required, as there are no associated reportable sample results. Only method blanks and an LCS were analyzed under this batch.	
20. Was a LCS prepared for each batch and matrix?	✓				

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
21. Were LCS recoveries within lab control limits? If no, J flag positive results when %R >Upper Control Limit (UCL) and J/R flag results when %R <Lower Control Limit (LCL).	✓				
22. Were LCS/LCSD RPD within lab specifications? If no, J flag positive results and UJ flag non-detects			✓	LCS only	
23. Was a MS/MSD pair extracted at the proper frequency (one per 20 samples per batch)?	✓				
24. Is the MS/MSD parent sample a project-specific sample?	✓	✓		<ul style="list-style-type: none"> Batch 369207: 680-109515-6 (Batch Sample), MS/MSD. Lab sample 680-109515-6 is a project-specific sample (CV0511AB3-GS12") and results were reported under Job ID 680-109515-1. Batch 369210: 680-109515-15 (CV0627B-GS6"), MS/MSD Batch 369331: 680-109515-49 (Batch Sample), MS/MSD. Lab sample 680-109515-49 is a project-specific sample (CV0312A-CS12") and results were reported under Job ID 680-109515-4. 	
25. For all analytes with native sample concentrations < 4 x spiking level, were MS and MSD recoveries within laboratory/project specifications? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. If either MS or MSD recovery meets control limits, qualification of data is not warranted. MS and MSD %R<10: J and R Flag positive and ND results, respectively MS and MSD %R >10 and <LCL: J Flag positive and UJ flag non-detect results MS and MSD R% >UCL (or 140): J Flag positive results 		✓		CV0627B-GS6" (680-109515-15): <ul style="list-style-type: none"> Benzo[a]pyrene MS and MSD @80 and 23 %R (41-158). Qualification of data not required³. Benzo[k]fluoranthene MS and MSD @31 and 40 %R (38-148). Qualification of data not required². 1-Methylnaphthalene MS and MSD @20 and 24 %R (36-130). J Flag 2-Methylnaphthalene MS and MSD @17 and 21 %R (42-130). J Flag Naphthalene MS and MSD @26 and 29 %R (33-130). J Flag 	J
26. For all analytes with native sample concentrations < 4 x spiking level, were laboratory criteria met for precision during the MS and MSD analyses? <i>Only QC results for project samples that are reported under this Job ID are evaluated.</i> <ul style="list-style-type: none"> If the native sample concentration > 4x spiking level, then an evaluation of interference is not possible. If %RPD > UCL, J flag positive result and UJ flag non-detect result 	✓				
27. Were surrogate recoveries within lab/project specifications? <ul style="list-style-type: none"> If %R for 1 Acid or BN surrogates <10, then J flag positive and R flag non-detect associated sample results (i.e., acid or BN 		✓		Surrogate o-terphenyl was not recovered (0%) during the diluted analysis of samples 680-109515-19 and -28. Qualification of sample results is not warranted, as the surrogate compound was	

³ The recovery of either the MS or MSD met control limits.

Data Validation Checklist (Continued)

Review Questions	Yes	No	N/A	Samples (Analytes) Affected/Comments	Flag
results) <ul style="list-style-type: none"> If 2 or more Acid or BN %R >UCL, then J flag positive associated sample results (i.e., acid or BN results) If 2 or more Acid or BN %R \geq10%, but <LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) If 2 or more Acid or BN , with 1 %R >UCL and 1 %R \geq10%, but <LCL, then J flag positive and UJ flag non-detect associated sample results (i.e., acid or BN results) 				diluted out of the samples.	
28. Were internal standard (IS) results within lab/project specifications? <ul style="list-style-type: none"> If IS area counts are less than 50% of the midpoint calibration standard, then J flag positive and UJ flag non-detect associated sample results If IS area counts are greater than 100% of the midpoint calibration standard, then J flag positive results If extremely low area counts are reported or performance exhibits a major abrupt drop-off, then a severe loss of sensitivity is indicated, J flag positive and R flag non-detect results If retention time of sample's internal standard is not within 30 seconds of the associated calibration standard, R flag associated data. The chromatographic profile for that sample must be examined to determine if any false positives or negatives exists. For shifts of large magnitude, the reviewer may consider partial or total rejection of the data for that sample fraction. Positive results need not be qualified as R, if mass spectral criteria are met. 	✓				
29. Were lab comments included in report?	✓			Refer to Attachment C (Case Narrative)	
Comments: The data validation was conducted in accordance with the <i>Non-Industrial Use Property Sampling Event QAPP for the 35th Avenue Removal Site, Birmingham, Alabama, Revision 1</i> (OTIE, October 2012). The data review process was modeled after the <i>USEPA Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Organic Methods Data Review</i> (EPA, October 1999) and <i>USEPA CLP NFG for Low Concentration Organic Methods Data Review</i> (EPA, June 2001). Sample results have been qualified based on the results of the data review process (Attachment D). Criteria for acceptability of data were based upon available site information, analytical method requirements, guidance documents, and professional judgment.					

DV Flag Definitions:

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R The sample results are unusable. The analyte may or may not be present in the sample.
- U The analyte was analyzed for, but was not detected above the associated level; blank contamination may exist.
- UJ The analyte was not detected above the limit, and the limit is approximate and may be inaccurate or imprecise.

ATTACHMENT A
SAMPLE SUMMARY

SAMPLE SUMMARY

Client: Oneida Total Integrated Enterprises LLC

Job Number: 680-109515-2

Sdg Number: 680-109515-02

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-109515-15	CV0627B-GS6"	Solid	01/27/2015 0905	01/31/2015 0852
680-109515-15MS	CV0627B-GS6"	Solid	01/27/2015 0905	01/31/2015 0852
680-109515-15MSD	CV0627B-GS6"	Solid	01/27/2015 0905	01/31/2015 0852
680-109515-16	CV0627B-GS12"	Solid	01/27/2015 0910	01/31/2015 0852
680-109515-17	CV0627B-GS18"	Solid	01/27/2015 0915	01/31/2015 0852
680-109515-18	CV0627B-GS24"	Solid	01/27/2015 0920	01/31/2015 0852
680-109515-19	CV0627B-CS0-4"	Solid	01/27/2015 0915	01/31/2015 0852
680-109515-20	HP0320C-CS6"	Solid	01/27/2015 1005	01/31/2015 0852
680-109515-21	HP0320C-CS12"	Solid	01/27/2015 1010	01/31/2015 0852
680-109515-22	HP0320C-CS18"	Solid	01/27/2015 1015	01/31/2015 0852
680-109515-23	HP0320C-CS24"	Solid	01/27/2015 1020	01/31/2015 0852
680-109515-24	HP0320E-CS6"	Solid	01/27/2015 1120	01/31/2015 0852
680-109515-25	HP0320E-GS12"	Solid	01/27/2015 1125	01/31/2015 0852
680-109515-26	HP0320E-GS18"	Solid	01/27/2015 1130	01/31/2015 0852
680-109515-27	HP0320E-GS24"	Solid	01/27/2015 1135	01/31/2015 0852
680-109515-28	HP0320K-CS6"	Solid	01/27/2015 1315	01/31/2015 0852
680-109515-29	HP0320K-CS12"	Solid	01/27/2015 1320	01/31/2015 0852
680-109515-30	HP0320K-GS18"	Solid	01/27/2015 1325	01/31/2015 0852
680-109515-31	HP0320K-GS24"	Solid	01/27/2015 1330	01/31/2015 0852
680-109515-32	HP0320J-CS6"	Solid	01/27/2015 1410	01/31/2015 0852
680-109515-33	HP0320J-CS12"	Solid	01/27/2015 1415	01/31/2015 0852
680-109515-34	HP0320J-GS18"	Solid	01/27/2015 1420	01/31/2015 0852

ATTACHMENT B
FIELD DUPLICATE EVALUATION

Evaluation of Field Duplicate Results

Attachment B

Analyte	680-109515-32 HP0320J-CS6"	RL	680-109515-63 HP0320J-CSD6"	RL	Unit	Avg. RLx5	RPD	Absolute difference	2x Avg RL	Action
1-Methylnaphthalene	15	8.7	16	8.5	µg/kg	43	NA	1	17.2	None, absolute difference ≤ 2x Avg RL
2-Methylnaphthalene	18	8.7	21	8.5	µg/kg	43	NA	3	17.2	None, absolute difference ≤ 2x Avg RL
Acenaphthylene	5.7 J	8.7	27	8.5	µg/kg	43	NA	21.3	17.2	J/UJ-flag, absolute difference > 2x Avg RL
Anthracene	10	8.7	39	8.5	µg/kg	43	NA	29	17.2	J/UJ-flag, absolute difference > 2x Avg RL
Benzo(a)anthracene	58	8.7	200	8.5	µg/kg	43	110	NA	NA	J/UJ-flag, RPD > 50%
Benzo(a)pyrene	52	8.7	150	8.5	µg/kg	43	97	NA	NA	J/UJ-flag, RPD > 50%
Benzo(b)fluoranthene	98	8.7	240	8.5	µg/kg	43	84	NA	NA	J/UJ-flag, RPD > 50%
Benzo(g,h,i)perylene	30	8.7	65	8.5	µg/kg	43	NA	35	17.2	J/UJ-flag, absolute difference > 2x Avg RL
Benzo(k)fluoranthene	35	8.7	100	8.5	µg/kg	43	NA	65	17.2	J/UJ-flag, absolute difference > 2x Avg RL
Chrysene	78	8.7	230	8.5	µg/kg	43	99	NA	NA	J/UJ-flag, RPD > 50%
Dibenzo(a,h)anthracene	12	8.7	34	8.5	µg/kg	43	NA	22	17.2	J/UJ-flag, absolute difference > 2x Avg RL
Fluoranthene	82	8.7	320	8.5	µg/kg	43	118	NA	NA	J/UJ-flag, RPD > 50%
Indeno(1,2,3-cd)pyrene	19	8.7	58	8.5	µg/kg	43	NA	39	17.2	J/UJ-flag, absolute difference > 2x Avg RL
Naphthalene	20	8.7	31	8.5	µg/kg	43	NA	11	17.2	None, absolute difference ≤ 2x Avg RL
Phenanthrene	56	8.7	110	8.5	µg/kg	43	65	NA	NA	J/UJ-flag, RPD > 50%
Pyrene	71	8.7	250	8.5	µg/kg	43	112	NA	NA	J/UJ-flag, RPD > 50%

Note: If the analyte was not detected, then the cell was left blank.

µg/kg - micrograms per kilogram

J - Estimated value

NA - Not applicable

RL - Reporting limit

RPD - Relative percent difference

UJ - Not detected and the limit is estimated

Precision is based on either the absolute difference between sample results or RPD. If the sample results are less than or equal to 5x's the RL, then precision is based on the absolute difference between duplicate results. If sample results >5x's RL, then precision is evaluated using RPD. J-Flag sample results whenever the absolute difference is greater than the RL (2x for soils) or the RPD >20% (50% for soil). Table above presents the results for detected analytes only.

ATTACHMENT C
CASE NARRATIVE

CASE NARRATIVE
Client: Oneida Total Integrated Enterprises LLC
Project: 35th Avenue Superfund Site
Report Number: 680-109515-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 1/31/2015 8:52 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.3° C and 2.1° C.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) LOW LEVEL PAH

Samples CV0627B-GS6" (680-109515-15), CV0627B-GS12" (680-109515-16), CV0627B-GS18" (680-109515-17), CV0627B-GS24" (680-109515-18), CV0627B-CS0-4" (680-109515-19), HP0320C-CS6" (680-109515-20), HP0320C-CS12" (680-109515-21), HP0320C-CS18" (680-109515-22), HP0320C-CS24" (680-109515-23), HP0320E-CS6" (680-109515-24), HP0320E-GS12" (680-109515-25), HP0320E-GS18" (680-109515-26), HP0320E-GS24" (680-109515-27), HP0320K-CS6" (680-109515-28), HP0320K-CS12" (680-109515-29), HP0320K-GS18" (680-109515-30), HP0320K-GS24" (680-109515-31), HP0320J-CS6" (680-109515-32), HP0320J-CS12" (680-109515-33) and HP0320J-GS18" (680-109515-34) were analyzed for Semivolatile Organic Compounds (GC/MS) Low level PAH in accordance with EPA SW846 Method 8270D. The samples were prepared on 02/02/2015 and 02/03/2015 and analyzed on 02/06/2015 and 02/07/2015.

Method(s) 8270D_LL_PAH: Manual integration was performed on the following sample(s): CV0627B-GS12" (680-109515-16), CV0627B-GS18" (680-109515-17), CV0627B-GS24" (680-109515-18), CV0627B-CS0-4" (680-109515-19), CV0627B-GS6" (680-109515-15), HP0320J-CS6" (680-109515-32), HP0320K-CS6" (680-109515-28), CV0627B-GS6" (680-109515-15 MS), CV0627B-GS6" (680-109515-15 MSD), HP0320C-CS12" (680-109515-21), HP0320C-CS24" (680-109515-23), HP0320C-CS6" (680-109515-20), HP0320E-CS6" (680-109515-24), HP0320E-GS12" (680-109515-25), HP0320E-GS18" (680-109515-26), HP0320J-CS12" (680-109515-33), HP0320J-GS18" (680-109515-34), HP0320K-CS12" (680-109515-29), HP0320K-GS18" (680-109515-30).

Method(s) 8270D_LL_PAH: The following sample(s) was diluted due to the nature of the sample matrix: CV0627B-CS0-4" (680-109515-19), HP0320K-CS6" (680-109515-28). Due to the dilution, the surrogate recoveries are outside criteria.

Method(s) 8270D_LL_PAH: The continuing calibration verification (CCV) analyzed in batch 370012 was outside the method criteria for the following analyte(s): Indeno[1,2,3-cd]pyrene and o-terphenyl. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several compounds have recovery outside criteria low for the MS and MSD of sample CV0627B-GS6" (680-109515-15) in batch 680-369958.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

METALS (ICP)

Samples CV0627B-GS6" (680-109515-15), CV0627B-GS12" (680-109515-16), CV0627B-GS18" (680-109515-17), CV0627B-GS24" (680-109515-18), CV0627B-CS0-4" (680-109515-19), HP0320C-CS6" (680-109515-20), HP0320C-CS12" (680-109515-21), HP0320C-CS18" (680-109515-22), HP0320C-CS24" (680-109515-23), HP0320E-CS6" (680-109515-24), HP0320E-GS12" (680-109515-25), HP0320E-GS18" (680-109515-26), HP0320E-GS24" (680-109515-27), HP0320K-CS6" (680-109515-28), HP0320K-CS12" (680-109515-29), HP0320K-GS18" (680-109515-30), HP0320K-GS24" (680-109515-31), HP0320J-CS6" (680-109515-32), HP0320J-CS12" (680-109515-33) and HP0320J-GS18" (680-109515-34) were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 02/02/2015 and analyzed on 02/03/2015, 02/04/2015 and 02/05/2015.

Method(s) 6010C: The following sample(s) was diluted due to the presence of manganese which interferes with lead: HP0320C-CS12" (680-109515-21), HP0320C-CS6" (680-109515-20), HP0320J-CS6" (680-109515-32), HP0320J-GS18" (680-109515-34). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following sample(s) was diluted due to the presence of iron which interferes with aluminum, arsenic, and lead: CV0627B-GS18" (680-109515-17). Elevated reporting limits (RLs) are provided.

Arsenic, Iron and Lead have recovery outside criteria low for the MS of sample CV0627B-GS6"MS (680-109515-15) in batch 680-369692. Aluminum failed the recovery criteria high.

Iron recovery is outside criteria low for the MSD of sample CV0627B-GS6"MSD (680-109515-15) in batch 680-369692. Aluminum failed the recovery criteria high.

Refer to the QC report for details.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS/MOISTURE

Samples CV0627B-GS6" (680-109515-15), CV0627B-GS12" (680-109515-16), CV0627B-GS18" (680-109515-17), CV0627B-GS24" (680-109515-18), CV0627B-CS0-4" (680-109515-19), HP0320C-CS6" (680-109515-20), HP0320C-CS12" (680-109515-21), HP0320C-CS18" (680-109515-22), HP0320C-CS24" (680-109515-23), HP0320E-CS6" (680-109515-24), HP0320E-GS12" (680-109515-25), HP0320E-GS18" (680-109515-26), HP0320E-GS24" (680-109515-27), HP0320K-CS6" (680-109515-28), HP0320K-CS12" (680-109515-29), HP0320K-GS18" (680-109515-30), HP0320K-GS24" (680-109515-31), HP0320J-CS6" (680-109515-32), HP0320J-CS12" (680-109515-33) and HP0320J-GS18" (680-109515-34) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 01/31/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ATTACHMENT D
QUALIFIED SAMPLE RESULTS

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>CV0627B-GS6"</u>	Lab Sample ID: <u>680-109515-15</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0706.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 09:05</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.05(g)</u>	Date Analyzed: <u>02/07/2015 11:29</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>22.2</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.6	U	8.6	4.2
208-96-8	Acenaphthylene	53		8.6	4.2
120-12-7	Anthracene	62		8.6	4.2
56-55-3	Benzo[a]anthracene	200		8.6	4.2
50-32-8	Benzo[a]pyrene	200		8.6	1.5
205-99-2	Benzo[b]fluoranthene	470		8.6	4.2
191-24-2	Benzo[g,h,i]perylene	170		8.6	4.2
207-08-9	Benzo[k]fluoranthene	160		8.6	2.6
218-01-9	Chrysene	390		8.6	4.2
53-70-3	Dibenz(a,h)anthracene	69		8.6	4.2
206-44-0	Fluoranthene	240		8.6	4.2
86-73-7	Fluorene	8.6	U	8.6	4.2
193-39-5	Indeno[1,2,3-cd]pyrene	140		8.6	4.2
90-12-0	1-Methylnaphthalene	190	J	8.6	4.0
91-57-6	2-Methylnaphthalene	230	J	8.6	4.2
91-20-3	Naphthalene	160	J	8.6	4.2
85-01-8	Phenanthrene	350		8.6	3.1
129-00-0	Pyrene	240		8.6	4.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	74		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>CV0627B-GS12"</u>	Lab Sample ID: <u>680-109515-16</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0630.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 09:10</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.04(g)</u>	Date Analyzed: <u>02/06/2015 23:34</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>17.8</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
120-12-7	Anthracene	7.5	J	8.1	4.0
56-55-3	Benzo[a]anthracene	24		8.1	4.0
50-32-8	Benzo[a]pyrene	22		8.1	1.5
205-99-2	Benzo[b]fluoranthene	41		8.1	4.0
191-24-2	Benzo[g,h,i]perylene	21		8.1	4.0
207-08-9	Benzo[k]fluoranthene	13		8.1	2.4
218-01-9	Chrysene	32		8.1	4.0
53-70-3	Dibenz(a,h)anthracene	5.8	J	8.1	4.0
206-44-0	Fluoranthene	36		8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	12		8.1	4.0
90-12-0	1-Methylnaphthalene	75		8.1	3.8
91-57-6	2-Methylnaphthalene	75		8.1	4.0
91-20-3	Naphthalene	43		8.1	4.0
85-01-8	Phenanthrene	61		8.1	2.9
129-00-0	Pyrene	39		8.1	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	65		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>CV0627B-GS18"</u>	Lab Sample ID: <u>680-109515-17</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0631.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 09:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.10(g)</u>	Date Analyzed: <u>02/06/2015 23:57</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>14.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.8	U	7.8	3.8
208-96-8	Acenaphthylene	7.8	U	7.8	3.8
120-12-7	Anthracene	7.8	U	7.8	3.8
56-55-3	Benzo[a]anthracene	5.0	J	7.8	3.8
50-32-8	Benzo[a]pyrene	6.1	J	7.8	1.4
205-99-2	Benzo[b]fluoranthene	13		7.8	3.8
191-24-2	Benzo[g,h,i]perylene	7.1	J	7.8	3.8
207-08-9	Benzo[k]fluoranthene	5.4	J	7.8	2.3
218-01-9	Chrysene	9.1		7.8	3.8
53-70-3	Dibenz(a,h)anthracene	7.8	U	7.8	3.8
206-44-0	Fluoranthene	4.6	J	7.8	3.8
86-73-7	Fluorene	7.8	U	7.8	3.8
193-39-5	Indeno[1,2,3-cd]pyrene	5.1	J	7.8	3.8
90-12-0	1-Methylnaphthalene	4.6	J	7.8	3.6
91-57-6	2-Methylnaphthalene	4.9	J	7.8	3.8
91-20-3	Naphthalene	7.8	U	7.8	3.8
85-01-8	Phenanthrene	6.6	J	7.8	2.8
129-00-0	Pyrene	4.7	J	7.8	3.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	63		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>CV0627B-GS24"</u>	Lab Sample ID: <u>680-109515-18</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0632.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 09:20</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>29.91(g)</u>	Date Analyzed: <u>02/07/2015 00:20</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>19.2</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369912</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.3	U	8.3	4.1
208-96-8	Acenaphthylene	8.3	U	8.3	4.1
120-12-7	Anthracene	8.3	U	8.3	4.1
56-55-3	Benzo[a]anthracene	5.1	J	8.3	4.1
50-32-8	Benzo[a]pyrene	7.3	J	8.3	1.5
205-99-2	Benzo[b]fluoranthene	16		8.3	4.1
191-24-2	Benzo[g,h,i]perylene	6.9	J	8.3	4.1
207-08-9	Benzo[k]fluoranthene	5.4	J	8.3	2.5
218-01-9	Chrysene	9.4		8.3	4.1
53-70-3	Dibenz(a,h)anthracene	8.3	U	8.3	4.1
206-44-0	Fluoranthene	4.8	J	8.3	4.1
86-73-7	Fluorene	8.3	U	8.3	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	6.2	J	8.3	4.1
90-12-0	1-Methylnaphthalene	8.3	U	8.3	3.8
91-57-6	2-Methylnaphthalene	8.3	U	8.3	4.1
91-20-3	Naphthalene	8.3	U	8.3	4.1
85-01-8	Phenanthrene	5.4	J	8.3	3.0
129-00-0	Pyrene	5.1	J	8.3	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	61		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>CV0627B-CS0-4"</u>	Lab Sample ID: <u>680-109515-19</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0709.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 09:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>30.30(g)</u>	Date Analyzed: <u>02/07/2015 12:37</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>28.7</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	93	U	93	46
208-96-8	Acenaphthylene	180		93	46
120-12-7	Anthracene	130		93	46
56-55-3	Benzo[a]anthracene	450		93	46
50-32-8	Benzo[a]pyrene	590		93	17
205-99-2	Benzo[b]fluoranthene	1400		93	46
191-24-2	Benzo[g,h,i]perylene	520		93	46
207-08-9	Benzo[k]fluoranthene	430		93	28
218-01-9	Chrysene	770		93	46
53-70-3	Dibenz(a,h)anthracene	180		93	46
206-44-0	Fluoranthene	540		93	46
86-73-7	Fluorene	93	U	93	46
193-39-5	Indeno[1,2,3-cd]pyrene	430		93	46
90-12-0	1-Methylnaphthalene	200		93	43
91-57-6	2-Methylnaphthalene	240		93	46
91-20-3	Naphthalene	220		93	46
85-01-8	Phenanthrene	430		93	33
129-00-0	Pyrene	490		93	46

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320C-CS6"</u>	Lab Sample ID: <u>680-109515-20</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0626.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 10:05</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:00</u>
Sample wt/vol: <u>29.95(g)</u>	Date Analyzed: <u>02/07/2015 01:26</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>16.6</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.0	U	8.0	4.0
208-96-8	Acenaphthylene	9.3		8.0	4.0
120-12-7	Anthracene	10		8.0	4.0
56-55-3	Benzo[a]anthracene	50		8.0	4.0
50-32-8	Benzo[a]pyrene	65		8.0	1.4
205-99-2	Benzo[b]fluoranthene	130		8.0	4.0
191-24-2	Benzo[g,h,i]perylene	46		8.0	4.0
207-08-9	Benzo[k]fluoranthene	38		8.0	2.4
218-01-9	Chrysene	93		8.0	4.0
53-70-3	Dibenz(a,h)anthracene	23		8.0	4.0
206-44-0	Fluoranthene	63		8.0	4.0
86-73-7	Fluorene	8.0	U	8.0	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	33		8.0	4.0
90-12-0	1-Methylnaphthalene	26		8.0	3.7
91-57-6	2-Methylnaphthalene	28		8.0	4.0
91-20-3	Naphthalene	28		8.0	4.0
85-01-8	Phenanthrene	60		8.0	2.9
129-00-0	Pyrene	81		8.0	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	90		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320C-CS12"</u>	Lab Sample ID: <u>680-109515-21</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0610.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 10:10</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.08(g)</u>	Date Analyzed: <u>02/06/2015 19:29</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>16.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.0	U	8.0	3.9
208-96-8	Acenaphthylene	8.0	U	8.0	3.9
120-12-7	Anthracene	8.0	U	8.0	3.9
56-55-3	Benzo[a]anthracene	9.4		8.0	3.9
50-32-8	Benzo[a]pyrene	12		8.0	1.4
205-99-2	Benzo[b]fluoranthene	25		8.0	3.9
191-24-2	Benzo[g,h,i]perylene	9.6		8.0	3.9
207-08-9	Benzo[k]fluoranthene	11		8.0	2.4
218-01-9	Chrysene	18		8.0	3.9
53-70-3	Dibenz(a,h)anthracene	8.0	U	8.0	3.9
206-44-0	Fluoranthene	13		8.0	3.9
86-73-7	Fluorene	8.0	U	8.0	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	6.7	J	8.0	3.9
90-12-0	1-Methylnaphthalene	6.7	J	8.0	3.7
91-57-6	2-Methylnaphthalene	8.6		8.0	3.9
91-20-3	Naphthalene	9.5		8.0	3.9
85-01-8	Phenanthrene	12		8.0	2.9
129-00-0	Pyrene	15		8.0	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	73		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320C-CS18"</u>	Lab Sample ID: <u>680-109515-22</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0611.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 10:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.14(g)</u>	Date Analyzed: <u>02/06/2015 19:51</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>17.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
120-12-7	Anthracene	8.1	U	8.1	4.0
56-55-3	Benzo[a]anthracene	8.1	U	8.1	4.0
50-32-8	Benzo[a]pyrene	8.1	U	8.1	1.4
205-99-2	Benzo[b]fluoranthene	8.1	U	8.1	4.0
191-24-2	Benzo[g,h,i]perylene	8.1	U	8.1	4.0
207-08-9	Benzo[k]fluoranthene	8.1	U	8.1	2.4
218-01-9	Chrysene	8.1	U	8.1	4.0
53-70-3	Dibenz(a,h)anthracene	8.1	U	8.1	4.0
206-44-0	Fluoranthene	8.1	U	8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	8.1	U	8.1	4.0
90-12-0	1-Methylnaphthalene	8.1	U	8.1	3.7
91-57-6	2-Methylnaphthalene	8.1	U	8.1	4.0
91-20-3	Naphthalene	8.1	U	8.1	4.0
85-01-8	Phenanthrene	8.1	U	8.1	2.9
129-00-0	Pyrene	8.1	U	8.1	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	71		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320C-CS24"</u>	Lab Sample ID: <u>680-109515-23</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0612.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 10:20</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>29.91(g)</u>	Date Analyzed: <u>02/06/2015 20:13</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>17.4</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
120-12-7	Anthracene	8.1	U	8.1	4.0
56-55-3	Benzo[a]anthracene	8.1	U	8.1	4.0
50-32-8	Benzo[a]pyrene	2.6	J	8.1	1.5
205-99-2	Benzo[b]fluoranthene	5.2	J	8.1	4.0
191-24-2	Benzo[g,h,i]perylene	8.1	U	8.1	4.0
207-08-9	Benzo[k]fluoranthene	8.1	U	8.1	2.4
218-01-9	Chrysene	8.1	U	8.1	4.0
53-70-3	Dibenz(a,h)anthracene	8.1	U	8.1	4.0
206-44-0	Fluoranthene	8.1	U	8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	8.1	U	8.1	4.0
90-12-0	1-Methylnaphthalene	8.1	U	8.1	3.8
91-57-6	2-Methylnaphthalene	8.1	U	8.1	4.0
91-20-3	Naphthalene	8.1	U	8.1	4.0
85-01-8	Phenanthrene	8.1	U	8.1	2.9
129-00-0	Pyrene	8.1	U	8.1	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	71		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320E-CS6"</u>	Lab Sample ID: <u>680-109515-24</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0613.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 11:20</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>29.90 (g)</u>	Date Analyzed: <u>02/06/2015 20:36</u>
Con. Extract Vol.: <u>1 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2 (uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>16.7</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.8	J	8.1	4.0
208-96-8	Acenaphthylene	16		8.1	4.0
120-12-7	Anthracene	18		8.1	4.0
56-55-3	Benzo[a]anthracene	89		8.1	4.0
50-32-8	Benzo[a]pyrene	110		8.1	1.4
205-99-2	Benzo[b]fluoranthene	200		8.1	4.0
191-24-2	Benzo[g,h,i]perylene	69		8.1	4.0
207-08-9	Benzo[k]fluoranthene	65		8.1	2.4
218-01-9	Chrysene	140		8.1	4.0
53-70-3	Dibenz(a,h)anthracene	22		8.1	4.0
206-44-0	Fluoranthene	120		8.1	4.0
86-73-7	Fluorene	5.1	J	8.1	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	54		8.1	4.0
90-12-0	1-Methylnaphthalene	24		8.1	3.7
91-57-6	2-Methylnaphthalene	26		8.1	4.0
91-20-3	Naphthalene	23		8.1	4.0
85-01-8	Phenanthrene	69		8.1	2.9
129-00-0	Pyrene	140		8.1	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	87		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320E-GS12"</u>	Lab Sample ID: <u>680-109515-25</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0614.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 11:25</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.33(g)</u>	Date Analyzed: <u>02/06/2015 20:58</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>16.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7.9	U	7.9	3.9
208-96-8	Acenaphthylene	7.9	U	7.9	3.9
120-12-7	Anthracene	7.9	U	7.9	3.9
56-55-3	Benzo[a]anthracene	6.9	J	7.9	3.9
50-32-8	Benzo[a]pyrene	11		7.9	1.4
205-99-2	Benzo[b]fluoranthene	22		7.9	3.9
191-24-2	Benzo[g,h,i]perylene	7.1	J	7.9	3.9
207-08-9	Benzo[k]fluoranthene	7.9		7.9	2.4
218-01-9	Chrysene	10		7.9	3.9
53-70-3	Dibenz(a,h)anthracene	7.9	U	7.9	3.9
206-44-0	Fluoranthene	6.7	J	7.9	3.9
86-73-7	Fluorene	7.9	U	7.9	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	5.6	J	7.9	3.9
90-12-0	1-Methylnaphthalene	7.9	U	7.9	3.7
91-57-6	2-Methylnaphthalene	7.9	U	7.9	3.9
91-20-3	Naphthalene	7.9	U	7.9	3.9
85-01-8	Phenanthrene	7.9	U	7.9	2.8
129-00-0	Pyrene	10		7.9	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	76		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320E-GS18"</u>	Lab Sample ID: <u>680-109515-26</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0615.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 11:30</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.18(g)</u>	Date Analyzed: <u>02/06/2015 21:20</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>17.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
120-12-7	Anthracene	8.1	U	8.1	4.0
56-55-3	Benzo[a]anthracene	8.1	U	8.1	4.0
50-32-8	Benzo[a]pyrene	3.1	J	8.1	1.4
205-99-2	Benzo[b]fluoranthene	5.9	J	8.1	4.0
191-24-2	Benzo[g,h,i]perylene	8.1	U	8.1	4.0
207-08-9	Benzo[k]fluoranthene	8.1	U	8.1	2.4
218-01-9	Chrysene	8.1	U	8.1	4.0
53-70-3	Dibenz(a,h)anthracene	8.1	U	8.1	4.0
206-44-0	Fluoranthene	8.1	U	8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	8.1	U	8.1	4.0
90-12-0	1-Methylnaphthalene	8.1	U	8.1	3.7
91-57-6	2-Methylnaphthalene	8.1	U	8.1	4.0
91-20-3	Naphthalene	8.1	U	8.1	4.0
85-01-8	Phenanthrene	8.1	U	8.1	2.9
129-00-0	Pyrene	8.1	U	8.1	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	79		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320E-GS24"</u>	Lab Sample ID: <u>680-109515-27</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0616.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 11:35</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.21(g)</u>	Date Analyzed: <u>02/06/2015 21:43</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>17.9</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.1	U	8.1	4.0
208-96-8	Acenaphthylene	8.1	U	8.1	4.0
120-12-7	Anthracene	8.1	U	8.1	4.0
56-55-3	Benzo[a]anthracene	8.1	U	8.1	4.0
50-32-8	Benzo[a]pyrene	8.1	U	8.1	1.5
205-99-2	Benzo[b]fluoranthene	8.1	U	8.1	4.0
191-24-2	Benzo[g,h,i]perylene	8.1	U	8.1	4.0
207-08-9	Benzo[k]fluoranthene	8.1	U	8.1	2.4
218-01-9	Chrysene	8.1	U	8.1	4.0
53-70-3	Dibenz(a,h)anthracene	8.1	U	8.1	4.0
206-44-0	Fluoranthene	8.1	U	8.1	4.0
86-73-7	Fluorene	8.1	U	8.1	4.0
193-39-5	Indeno[1,2,3-cd]pyrene	8.1	U	8.1	4.0
90-12-0	1-Methylnaphthalene	8.1	U	8.1	3.8
91-57-6	2-Methylnaphthalene	8.1	U	8.1	4.0
91-20-3	Naphthalene	8.1	U	8.1	4.0
85-01-8	Phenanthrene	8.1	U	8.1	2.9
129-00-0	Pyrene	8.1	U	8.1	4.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	71		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320K-CS6"</u>	Lab Sample ID: <u>680-109515-28</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0708.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 13:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.22(g)</u>	Date Analyzed: <u>02/07/2015 12:15</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>20.0</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	320		83	41
208-96-8	Acenaphthylene	83	U	83	41
120-12-7	Anthracene	850		83	41
56-55-3	Benzo[a]anthracene	1900		83	41
50-32-8	Benzo[a]pyrene	1400		83	15
205-99-2	Benzo[b]fluoranthene	2300		83	41
191-24-2	Benzo[g,h,i]perylene	910		83	41
207-08-9	Benzo[k]fluoranthene	940		83	25
218-01-9	Chrysene	1800		83	41
53-70-3	Dibenz(a,h)anthracene	310		83	41
206-44-0	Fluoranthene	4600		83	41
86-73-7	Fluorene	360		83	41
193-39-5	Indeno[1,2,3-cd]pyrene	870		83	41
90-12-0	1-Methylnaphthalene	43	J	83	38
91-57-6	2-Methylnaphthalene	61	J	83	41
91-20-3	Naphthalene	110		83	41
85-01-8	Phenanthrene	3300		83	30
129-00-0	Pyrene	2700		83	41

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	0	D	36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320K-CS12"</u>	Lab Sample ID: <u>680-109515-29</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0618.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 13:20</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.13(g)</u>	Date Analyzed: <u>02/06/2015 22:27</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>19.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.3	U	8.3	4.1
208-96-8	Acenaphthylene	8.3	U	8.3	4.1
120-12-7	Anthracene	8.3	U	8.3	4.1
56-55-3	Benzo[a]anthracene	20		8.3	4.1
50-32-8	Benzo[a]pyrene	22		8.3	1.5
205-99-2	Benzo[b]fluoranthene	41		8.3	4.1
191-24-2	Benzo[g,h,i]perylene	19		8.3	4.1
207-08-9	Benzo[k]fluoranthene	11		8.3	2.5
218-01-9	Chrysene	35		8.3	4.1
53-70-3	Dibenz(a,h)anthracene	6.9	J	8.3	4.1
206-44-0	Fluoranthene	35		8.3	4.1
86-73-7	Fluorene	8.3	U	8.3	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	14		8.3	4.1
90-12-0	1-Methylnaphthalene	4.5	J	8.3	3.8
91-57-6	2-Methylnaphthalene	4.9	J	8.3	4.1
91-20-3	Naphthalene	9.1		8.3	4.1
85-01-8	Phenanthrene	19		8.3	3.0
129-00-0	Pyrene	36		8.3	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	87		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320K-GS18"</u>	Lab Sample ID: <u>680-109515-30</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0619.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 13:25</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.32(g)</u>	Date Analyzed: <u>02/06/2015 22:50</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>17.3</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.0	U	8.0	3.9
208-96-8	Acenaphthylene	8.0	U	8.0	3.9
120-12-7	Anthracene	8.0	U	8.0	3.9
56-55-3	Benzo[a]anthracene	8.0	U	8.0	3.9
50-32-8	Benzo[a]pyrene	8.0	U	8.0	1.4
205-99-2	Benzo[b]fluoranthene	8.0	U	8.0	3.9
191-24-2	Benzo[g,h,i]perylene	8.0	U	8.0	3.9
207-08-9	Benzo[k]fluoranthene	8.0	U	8.0	2.4
218-01-9	Chrysene	8.0	U	8.0	3.9
53-70-3	Dibenz(a,h)anthracene	8.0	U	8.0	3.9
206-44-0	Fluoranthene	8.0	U	8.0	3.9
86-73-7	Fluorene	8.0	U	8.0	3.9
193-39-5	Indeno[1,2,3-cd]pyrene	8.0	U	8.0	3.9
90-12-0	1-Methylnaphthalene	8.0	U	8.0	3.7
91-57-6	2-Methylnaphthalene	8.0	U	8.0	3.9
91-20-3	Naphthalene	8.0	U	8.0	3.9
85-01-8	Phenanthrene	8.0	U	8.0	2.9
129-00-0	Pyrene	8.0	U	8.0	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	85		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320K-GS24"</u>	Lab Sample ID: <u>680-109515-31</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0620.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 13:30</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.15(g)</u>	Date Analyzed: <u>02/06/2015 23:12</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>19.8</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.3	U	8.3	4.1
208-96-8	Acenaphthylene	8.3	U	8.3	4.1
120-12-7	Anthracene	8.3	U	8.3	4.1
56-55-3	Benzo[a]anthracene	8.3	U	8.3	4.1
50-32-8	Benzo[a]pyrene	8.3	U	8.3	1.5
205-99-2	Benzo[b]fluoranthene	8.3	U	8.3	4.1
191-24-2	Benzo[g,h,i]perylene	8.3	U	8.3	4.1
207-08-9	Benzo[k]fluoranthene	8.3	U	8.3	2.5
218-01-9	Chrysene	8.3	U	8.3	4.1
53-70-3	Dibenz(a,h)anthracene	8.3	U	8.3	4.1
206-44-0	Fluoranthene	8.3	U	8.3	4.1
86-73-7	Fluorene	8.3	U	8.3	4.1
193-39-5	Indeno[1,2,3-cd]pyrene	8.3	U	8.3	4.1
90-12-0	1-Methylnaphthalene	8.3	U	8.3	3.8
91-57-6	2-Methylnaphthalene	8.3	U	8.3	4.1
91-20-3	Naphthalene	8.3	U	8.3	4.1
85-01-8	Phenanthrene	8.3	U	8.3	3.0
129-00-0	Pyrene	8.3	U	8.3	4.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	88		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320J-CS6"</u>	Lab Sample ID: <u>680-109515-32</u>
Matrix: <u>Solid</u>	Lab File ID: <u>1KB0733.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 14:10</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/03/2015 13:35</u>
Sample wt/vol: <u>29.95(g)</u>	Date Analyzed: <u>02/07/2015 21:48</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>22.7</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369988</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.7	U	8.7	4.3
208-96-8	Acenaphthylene	5.7	J J	8.7	4.3
120-12-7	Anthracene	10	J	8.7	4.3
56-55-3	Benzo[a]anthracene	58	J	8.7	4.3
50-32-8	Benzo[a]pyrene	52	J	8.7	1.6
205-99-2	Benzo[b]fluoranthene	98	J	8.7	4.3
191-24-2	Benzo[g,h,i]perylene	30	J	8.7	4.3
207-08-9	Benzo[k]fluoranthene	35	J	8.7	2.6
218-01-9	Chrysene	78	J	8.7	4.3
53-70-3	Dibenz(a,h)anthracene	12	J	8.7	4.3
206-44-0	Fluoranthene	82	J	8.7	4.3
86-73-7	Fluorene	8.7	U	8.7	4.3
193-39-5	Indeno[1,2,3-cd]pyrene	19	J	8.7	4.3
90-12-0	1-Methylnaphthalene	15		8.7	4.0
91-57-6	2-Methylnaphthalene	18		8.7	4.3
91-20-3	Naphthalene	20		8.7	4.3
85-01-8	Phenanthrene	56	J	8.7	3.1
129-00-0	Pyrene	71	J	8.7	4.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	77		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320J-CS12"</u>	Lab Sample ID: <u>680-109515-33</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0621.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 14:15</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.15(g)</u>	Date Analyzed: <u>02/06/2015 23:34</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>23.9</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.8	U	8.8	4.3
208-96-8	Acenaphthylene	8.8	U	8.8	4.3
120-12-7	Anthracene	8.3	J	8.8	4.3
56-55-3	Benzo[a]anthracene	49		8.8	4.3
50-32-8	Benzo[a]pyrene	56		8.8	1.6
205-99-2	Benzo[b]fluoranthene	98		8.8	4.3
191-24-2	Benzo[g,h,i]perylene	40		8.8	4.3
207-08-9	Benzo[k]fluoranthene	29		8.8	2.6
218-01-9	Chrysene	77		8.8	4.3
53-70-3	Dibenz(a,h)anthracene	12		8.8	4.3
206-44-0	Fluoranthene	62		8.8	4.3
86-73-7	Fluorene	8.8	U	8.8	4.3
193-39-5	Indeno[1,2,3-cd]pyrene	29		8.8	4.3
90-12-0	1-Methylnaphthalene	8.4	J	8.8	4.1
91-57-6	2-Methylnaphthalene	10		8.8	4.3
91-20-3	Naphthalene	13		8.8	4.3
85-01-8	Phenanthrene	41		8.8	3.1
129-00-0	Pyrene	63		8.8	4.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	91		36-131

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Savannah</u>	Job No.: <u>680-109515-2</u>
SDG No.: <u>680-109515-02</u>	
Client Sample ID: <u>HP0320J-GS18"</u>	Lab Sample ID: <u>680-109515-34</u>
Matrix: <u>Solid</u>	Lab File ID: <u>2YB0622.D</u>
Analysis Method: <u>8270D_LL_PAH</u>	Date Collected: <u>01/27/2015 14:20</u>
Extract. Method: <u>3546</u>	Date Extracted: <u>02/02/2015 14:35</u>
Sample wt/vol: <u>30.07(g)</u>	Date Analyzed: <u>02/06/2015 23:56</u>
Con. Extract Vol.: <u>1(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>2(uL)</u>	Level: (low/med) <u>Low</u>
% Moisture: <u>23.7</u>	GPC Cleanup: (Y/N) <u>N</u>
Analysis Batch No.: <u>369958</u>	Units: <u>ug/Kg</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	8.8	U	8.8	4.3
208-96-8	Acenaphthylene	8.8	U	8.8	4.3
120-12-7	Anthracene	8.8	U	8.8	4.3
56-55-3	Benzo[a]anthracene	8.8	U	8.8	4.3
50-32-8	Benzo[a]pyrene	1.8	J	8.8	1.6
205-99-2	Benzo[b]fluoranthene	8.8	U	8.8	4.3
191-24-2	Benzo[g,h,i]perylene	8.8	U	8.8	4.3
207-08-9	Benzo[k]fluoranthene	8.8	U	8.8	2.6
218-01-9	Chrysene	4.3	J	8.8	4.3
53-70-3	Dibenz(a,h)anthracene	8.8	U	8.8	4.3
206-44-0	Fluoranthene	8.8	U	8.8	4.3
86-73-7	Fluorene	8.8	U	8.8	4.3
193-39-5	Indeno[1,2,3-cd]pyrene	8.8	U	8.8	4.3
90-12-0	1-Methylnaphthalene	8.8	U	8.8	4.1
91-57-6	2-Methylnaphthalene	8.8	U	8.8	4.3
91-20-3	Naphthalene	8.8	U	8.8	4.3
85-01-8	Phenanthrene	8.8	U	8.8	3.1
129-00-0	Pyrene	8.8	U	8.8	4.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
84-15-1	o-Terphenyl	100		36-131